

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-12 (canceled).

13. (new) A polymer mixture containing at least one synthetic first polymer $P(i)$ and at least one second polymer $P(j)$ and optionally a swelling agent for $P(i)$ and/or $P(j)$, wherein the polymer $P(i)$ has a degree of polymerisation $DP(P(i)) > 500$ and at least one type of crystallisable sequences A having a degree of polymerisation $DPs(P(i))$ of these sequences > 20 and the polymer $P(j)$ is made up of the same monomer units as the sequences A of $P(i)$ and the degree of polymerisation $DP(P(j))$ of $P(j)$ is $20 < DP(P(j)) < 500$ and the polymer mixture comprising a molecularly dispersed mixture containing $P(i)$ and $P(j)$ forms a network under heterocrystallisation.

14. (new) The polymer mixture according to claim 13, wherein under comparable processing conditions of $P(i)$ and of $P(i) + P(j)$

a) the quotient of the modulus of elasticity $E(i, j)$ of $P(i) + P(j)$ and the modulus of elasticity $E(i)$ of $P(i)$, $E(i, j)/E(i)$ is >1.1 and <4 ; and/or

b) the quotient of the yield stress $sy(i, j)$ of $P(i) + P(j)$ and the yield stress $sy(i)$ of $P(j)$, $sy(i, j)/sy(i)$ is >1.1 and <3.0 ; and optionally;

c) if there is a fraction A(j) of $P(j)$ relative to $P(i) +$

P(i) in wt.% within the range $1 < A(j) < 15$, the quotient of the breaking elongation $eb(i, j)$ of P(i) + P(j) and the breaking elongation $eb(i)$ of P(i), $eb(i, j)/eb(i)$ is >1.01 and <1.5 .

15. (new) The polymer mixtures of claim 14, wherein $E(i, j)$ is >1.3 , $sy(i, j)$ is > 1.2 and $eb(i, j)$ is > 1.03 .
16. (new) The polymer mixtures of claim 14, wherein $E(i, j)$ is >1.5 , $sy(i, j)$ is > 1.3 and $eb(i, j)$ is > 1.05 .
17. (new) The polymer mixtures of claim 14, wherein $E(i, j)$ is >2.0 , $sy(i, j)$ is > 1.5 and $eb(i, j)$ is > 1.10 .
18. (new) The polymer mixture according to claim 13, wherein a quotient of the MFI(i, j) of the mixture of P(i) + P(j) and the MFI(i) of P(i), $MFI(i, j)/MFI(i)$ is >1.2 and <500 .
19. (new) The polymer mixture according to claim 18, wherein the quotient of MFI(i, j) and MFI(i) is >1.5 .
20. (new) The polymer mixture according to claim 18, wherein the quotient of MFI(i, j) and MFI(i) is >2.0 .
21. (new) The polymer mixture according to claim 18, wherein the quotient of MFI(i, j) and MFI(i) is >3.0 .
22. (new) The polymer mixture according to claim 13, wherein under comparable processing conditions of P(i) and of P(i) + P(j), the quotient of the crystallinity $K(i, j)$ of P(i) + P(j) and the crystallinity $K(i)$ of P(i), $K(i, j)/K(i)$ is >1.03 and <3 .
23. (new) The polymer mixture according to claim 22, wherein the quotient of $K(i, j)$ and $K(i)$ is >1.05 .

24. (new) The polymer mixture according to claim 22, wherein the quotient of $K(i, j)$ and $K(i)$ is >1.1 .
25. (new) The polymer mixture according to claim 22, wherein the quotient of $K(i, j)$ and $K(i)$ is >1.2 .
26. (new) The polymer mixture according to claim 13, wherein the fraction $A(j)$ of $P(j)$ relative to $P(i) + P(i)$ in wt.% is in the range $1 < A(j) < 90$.
27. (new) The polymer mixture according to claim 13, wherein the fraction $A(j)$ of $P(j)$ relative to $P(i) + P(i)$ in wt.% is in the range $2 < A(j) < 85$.
28. (new) The polymer mixture according to claim 13, wherein the fraction $A(j)$ of $P(j)$ relative to $P(i) + P(i)$ in wt.% is in the range $3 < A(j) < 80$.
29. (new) The polymer mixture according to claim 13, wherein the fraction $A(j)$ of $P(j)$ relative to $P(i) + P(i)$ in wt.% is in the range $5 < A(j) < 75$.
30. (new) The polymer mixture according to claim 13, wherein $P(i)$ has a degree of branching $<3 \times 10^{-2}$, and $P(j)$ has a degree of branching $<5 \times 10^{-2}$.
31. (new) The polymer mixture according to claim 13, wherein $P(i)$ has a degree of branching $<1 \times 10^{-2}$, and $P(j)$ has a degree of branching $<1 \times 10^{-3}$.
32. (new) The polymer mixture according to claim 13, wherein $P(i)$ has a degree of branching $<5 \times 10^{-3}$, and $P(j)$ has a degree of branching $<1 \times 10^{-3}$.
33. (new) The polymer mixture according to claim 13, wherein $P(i)$ has a degree of branching $<1 \times 10^{-3}$, and $P(j)$ has a

degree of branching $<1 \times 10^{-4}$.

34. (new) The polymer mixture according to claim 13, wherein P(j) has a polydispersivity <30 .
35. (new) The polymer mixture according to claim 13, wherein P(j) has a polydispersivity <20 .
36. (new) The polymer mixture according to claim 13, wherein P(j) has a polydispersivity <10 .
37. (new) The polymer mixture according to claim 13, wherein P(j) has a polydispersivity <5 .
38. (new) The polymer mixture according to claim 13, wherein P(i) and/or P(j) have long-chain branchings which have a degree of polymerisation >20 .
39. (new) The polymer mixture according to claim 13, wherein P(i) and/or P(j) have long-chain branchings which have a degree of polymerisation >30 .
40. (new) The polymer mixture according to claim 13, wherein P(i) and/or P(j) have long-chain branchings which have a degree of polymerisation >40 .
41. (new) The polymer mixture according to claim 13, wherein P(i) and/or P(j) have long-chain branchings which have a degree of polymerisation >50 .
42. The polymer mixture according to claim 13, wherein P(i) or the sequences A of P(i) comprises a polyolefin selected from the group consisting of a polypropylene, polyethylene, VLDPE, LDPE, LLDPE, HDPE, HMWPE, UHMWPE and mixtures thereof.

43. (new) The polymer mixture according to claim 13, wherein P(i) is a polyolefin and P(j) selected from the group consisting of n-alkanes C_nH_{2n+2} ; isoalkanes C_n ; cyclic alkanes C_nH_{2n} ; polyethylene wax; paraffins and paraffin wax of mineral origin such as macrocrystalline, intermediate or microcrystalline paraffins, brittle, ductile, elastic or plastic microcrystalline paraffins; paraffins and paraffin wax of synthetic origin; hyper-branched alpha olefins; polypropylene wax and mixtures thereof.
44. (new) The polymer mixture according to claim 13, wherein P(j) has a density in g/cm^3 of >0.9 , and a melting or dropping point in $^{\circ}C$ of >80 .
45. (new) The polymer mixture according to claim 13, wherein P(j) has a density in g/cm^3 of >0.925 , and a melting or dropping point in $^{\circ}C$ of >100 .
46. (new) The polymer mixture according to claim 13, wherein P(j) has a density in g/cm^3 of >0.950 , and a melting or dropping point in $^{\circ}C$ of >110 .
47. (new) The polymer mixture according to claim 13, wherein P(j) has a density in g/cm^3 of >0.970 , and a melting or dropping point in $^{\circ}C$ of >120 .
48. (new) The polymer mixture according to claim 13, wherein P(j) has a density in g/cm^3 of >0.980 , and a melting or dropping point in $^{\circ}C$ of >125 .
49. (new) The polymer mixture according to claim 13, wherein the polymer mixture in the form of a thermoplastic melt is prepared by means of a dispersively and distributively acting mixing system, especially by means of a double-screw extruder or a single-screw extruder with mixing section or a Buss-Ko kneader and optionally after preparation is present

in the form of granules, pellets, powder, macro- or micro-fibres, as film, casting, continuous casting, extrudate, thermo-shaped part and the like.